

Application No. 10/809,470
Docket No. AD7006 US NA

DEC 18 2006

Page 7

REMARKS

As a preliminary matter, the withdrawal of the rejections based on U.S. Patent No. 6,103,779, issued to Guzauskas is acknowledged with gratitude.

In a second preliminary matter, Applicants are amending claim 1 herein to require that the microfibers also be introduced into the polyester composition in the form of a slurry, and more specifically by contacting the slurry with one or more polymerizable components from which the polyester composition is obtained. A basis for this amendment may be found in the specification on pages 12 and 13 and in the Examples of the invention, *inter alia*.

Turning to substantive matters, the Official Action dated April 21, 2006, has repeated and made final the rejection of claims 1 to 8, 11, 13, 30 and 31 under 35 U.S.C. § 102 as anticipated by, or, in the alternative, under 35 U.S.C. § 103 as obvious over International Patent Appln. Publn. No. WO02/083794, by Phillipoz et al. (hereinafter "Phillipoz"). Likewise, the rejection of claims 1 to 5, 7, 8, and 30 to 32 under 35 U.S.C. § 102 as anticipated by, or, in the alternative, under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,068,922, issued to Vercesi et al. (hereinafter "Vercesi") was repeated and made final. In addition, claims 12, 33 and 34 were rejected under 35 U.S.C. § 103 as obvious over Phillipoz, and claims 9 and 10 were rejected under 35 U.S.C. § 103 as obvious over Vercesi.

These are the sole reasons presented in the Official Action why the present application should not be allowed. Applicants respectfully traverse these rejections for the reasons set forth below.

It is well established that a claim is neither anticipated nor obvious in light of a cited reference unless the cited reference teaches or suggests each and every element of the claimed invention. See, e.g., M.P.E.P. at §§ 2131 and 2143.

To reiterate briefly, Phillipoz includes no mention whatsoever of a slurry of microfibers. The description does not explain in detail how to add the microfibers to the thermoplastic polymeric matrix, except in a passing reference to "mixing or extrusion", or via a masterbatch, which is not the same as a slurry. See page 6 at lines 6 to 17 and 28 to 30, and the Examples of the invention, particularly

Application No. 10/809,470
Docket No. AD7006 US NA

Page 8

page 10 at lines 20 to 26. Therefore, newly amended claim 1 is not anticipated by and not obvious over Phillipoz.

Furthermore, Vercesi teaches away from microfiber slurries. See, for example, column 3 at lines 12 to 39, and particularly lines 35 to 37, and also column 2 at lines 37 to 46. Therefore, Vercesi does not anticipate newly amended claim 1, and the rejection of newly amended claim 1 for obviousness over Vercesi is improper.

It is believed that the facts and reasoning above are sufficient to overcome the rejections based on Phillipoz and Vercesi. Accordingly, Applicants respectfully request that the rejections of claim 1 be withdrawn upon reconsideration.

In addition, Applicants offer the following comments in response to several points that are raised in the final Official Action:

First, and most significantly, Applicants are in complete agreement with the statements in the final Official Action that the doctrine pertaining to product-by-process claims is well established, specifically,

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. [M.P.E.P. § 2113, *citations omitted*.]

It is similarly well established, however, that

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially ... where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. [*Id.*, *citations omitted*.]

Here, the claims are drawn to a polyester composition comprising a micropulp. This micropulp is structurally different from the pulp that is described in the cited references. Succinctly put, the pulp that is described in the cited references is a mere precursor to the microfiber slurry that is specifically recited in claim 1, as amended. In particular, the microfiber slurry that is featured in amended

Application No. 10/809,470
Docket No. AD7006 US NA

Page 9

claim 1 is the product of a process in which a commercially available fiber is agitated in a liquid medium to reduce its size and to form a slurry. This reduced size, this slurry, and this introduction of the micropulp via the slurry, create structural differences in the claimed product that result directly from the specifically recited process steps.

As further evidence of the significance of these structural differences, Applicants point out that the novel small size of the microfiber in the slurry makes it possible to incorporate the microfibers into a polyester composition during a polymerization reaction. Previously available fibers are unsuitable for such processes, because their size typically causes blockages in the polymerization reactors.

Second, in response to the question posed on page 5 of the final Official Action, regarding whether the very definition of a slurry may be "a composition containing fibers and up to 85% of volatile liquid", Applicants respectfully point to Vercesi in column 3 at lines 35 to 37, wherein it is stated that compositions comprising aramid fibers and more than 85 wt% of water "clump together as a semi-solid mass and may even form a thick slurry."

As an aid to envisioning a composition containing fiber pulp and 85 wt% of water, Applicant respectfully submits the following calculations: the density of the fibers in Vercesi (50 grams per liter; col. 3 at lines 31) is very low compared to the density of water (1.0 g/ml), and consequently the volume of the water (85 wt% x 50g = 42.5 g or 42.5 ml of water) in the composition is very small, even though its weight is almost the same as the weight of one liter of the fibers. For these reasons, a composition of fibers and 85 wt% of water may have an appearance that is more akin to that of a sand castle than to that of a free-flowing slurry. No matter, however; Vercesi states clearly that both the semi-solid mass and the slurry are undesirable (col. 3 at lines 35 to 37). The preferred form is a free-flowing powder that is easy to handle, feed and meter (col. 3 at lines 12 to 21).

Third, Applicants respectfully take issue with the assertion in the Official Action that the specification includes an admission regarding the commercial availability of the microfiber that is featured in the claimed invention. Attention is

Application No. 10/809,470
Docket No. AD7006 US NA

Page 10

respectfully directed to the specification on page 5, and in particular to lines 28 to 30 of page 5, which include the opening sentence of the paragraph on page 6 that has been cited in the Official Action to support the erroneous allegation of an admission. The contents of page 5, and more specifically the content of the opening sentence, make plain that the material on page 6 describes the commercial availability of fibers that may be used as starting materials to produce the microfiber that is recited in claim 1, and not the commercial availability of the microfiber itself.

Finally, the rejection of claim 34 is rendered moot by its cancellation herein without prejudice to its reintroduction later in the prosecution or in a continuing application. Claims 2 through 13 and 30 through 33 depend, directly or indirectly, from claim 1. It follows by statute that these claims are also not anticipated by and not obvious over the cited references, for at least the same reasons that are set forth above with respect to claim 1. Therefore, Applicants respectfully request that the rejections of these claims under 35 U.S.C. §§ 102 and 103 also be withdrawn upon reconsideration.

Conclusion

A Petition for an Extension of Time for two months and the required fee for the extension is filed concurrently herewith. Should any further fee be required in connection with the present response, the Examiner is authorized to charge such fee, or deposit any credit, to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Application No. 10/809,470
Docket No. AD7006 US NA

Page 11

In view of the above amendments and remarks, and in view of the facts and reasoning set forth earlier in the prosecution, it is felt that all claims are in condition for allowance, and such action is respectfully requested. In closing, the Examiner is invited to contact the undersigned by telephone at (302) 892-1004 to conduct any business that may advance the prosecution of the present application.

Respectfully submitted,



MARIA M. KOURTAKIS
ATTORNEY FOR APPLICANTS
Kelly Law Registry on behalf of DuPont Legal
Registration No. 41,126
Telephone: (302) 892-1004
Facsimile: (302) 992-3257

Dated: December 18, 2006